

# ENOVIA V6 PRODUCT PORTFOLIO



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# Introduction

Successful companies today transform intellectual property (IP) into higher profits and winning products. These companies fuel sustainable innovation by utilizing online global collaboration to share the IP generated among functions, partners, suppliers, and customers.

Companies of all sizes can capitalize on their IP effectively with Dassault Systèmes (DS) Version 6 (V6) Product Lifecycle Management (PLM) software—an immersive, real-time 3D environment designed for secure, global collaborative and sustainable innovation. V6 enables companies to establish standard business processes, incorporate acquisitions, set up new business models and include all stakeholders in the product development process.

The ENOVIA V6 portfolio includes products organized by function, serving many user roles in the Enterprise:

- **Governance** provides companies with a platform to launch enterprise-wide new product introductions on-time and on-budget.
- **Global Sourcing** provides companies with solutions to leverage supply chain capabilities throughout the product lifecycle and make their suppliers an integral part of product development.
- **IP Lifecycle Management** eliminates costly product development errors by enhancing collaborative product design, IP asset management and bill of material (BOM) management and integration.
- **Unified Live Collaboration** provides a comprehensive platform to deploy product lifecycle processes across the extended enterprise by providing a single view of IP across all business process domains, powerful collaborative process management capabilities, and a service-oriented architecture (SOA) that integrates with other enterprise systems.

Each function is further divided into classifications that include products targeted at enhancing a customer's competitiveness. These products may be deployed together as part of a single ENOVIA system or separately.

## Governance

- Program Management schedules and tracks all aspects of the product development process in real time as the work is completed (from creator to collaborator to consumer), enabling visibility and accessibility across the enterprise.
- Requirements Management captures customer needs to plan new products with the greatest market impact and drive downstream development.
- Portfolio Configuration Management determines the optimal mix of product capabilities to meet market demands and minimize engineering costs.
- Compliancy ensures that product development activities comply with government and industry regulations.
- Decision Support Business Intelligence harnesses the organization's collective intelligence in real-time with an immersive 3D environment and dashboards that reveal issues in the product development process.

## Global Sourcing

- Supply Chain Network capabilities allow companies to securely involve supply chain employees in the entire product lifecycle.
- Collaborative Sourcing implements a "design for supply" strategy with repeatable and standardized direct material sourcing processes that provide the latest design information to the supply chain and valuable supplier quotation input to engineering.
- Supplier Performance Monitoring enhances the supplier partnership by designing, implementing and tracking part qualification plans, supplier development plans and scorecards.

## IP Lifecycle Management

- IP Classification & Re-Use decreases costs and promotes knowledge transfer by classifying IP for reuse.
- IP Asset Release synchronizes specifications and bills of material (BOMs) from concept to planning to production, reducing errors and costs while enhancing quality and time to market.
- IP Work-In-Progress enables a consistent, multi-discipline product definition by uniting creators, collaborators, and consumers through a single process based on Requirements, Functional, Logical and Physical (RFLP) product definitions.

## Unified Live Collaboration

- Data Warehouse and Process Management aggregates IP across all business process domains into a single meta-model so users across the extended enterprise can easily and quickly find product IP based on key words and file content regardless of how it was originally created. It also enables collaboration involving stakeholders across product development and identify where the business process needs to be modified to eliminate bottlenecks.
- IP Asset Federation leverages product information from other enterprise systems by federating their IP into the context of product development business processes.
- I-PLM Collaboration Studio provides the administrative tools to manage and deploy the ENOVIA system with flexible tools that lower total cost of ownership while fulfilling unique business needs.

# Governance

## Program Management

**ENOVIA® Program Central™** enables program and project managers to create a competitive advantage by delivering products from concept to market faster. Organizations can concentrate critical resources on the most profitable products while standardizing on best in class business processes across the extended enterprise.

### *Key Customer Benefits:*

- Real-time access to project pipelines for rapid analysis and decision making
- Optimized staffing plans with real-time utilization reports to assess availability of key skills across all projects
- Phased-base decision making process using best-in-class process templates with predefined phases, gates, and milestones

**ENOVIA® Program Experience** provides project team members with real-time access and visibility to their projects across the global enterprise. Entire teams can raise risks and issues, communicate up to date status reports and collaborate cross-functionally, ensuring quicker time to market for project deliverables.

### *Key Customer Benefits:*

- Collaborate on task deliverables with real time reporting on actual status for assigned project tasks along with easily tracking critical tasks
- Mitigate and report status on assigned project risks
- Capture and execute ad-hoc project risks

**ENOVIA® Program Change Control** provides program driven change management to enable the authorization and monitoring of complex system-wide changes assigned to multiple engineering groups.

### *Key Customer Benefits:*

- Consolidate sources of change information to collect, analyze, plan, and implement product issues, requests and change processes across the enterprise
- Assess the impact of changes to the overall product development schedule with real-time product change dashboards that eliminate manual collection, assessment, and reporting
- Reduce the risk of regulatory or customer non-conformance penalties by ensuring that company standard change processes are followed consistently

## Requirements Management

**ENOVIA® Requirements Central™** enables global development organizations to drive consistency in a shared environment when capturing customer, regulatory standards and market-driven requirements. Requirements can be defined and decomposed into a hierarchy, and fulfilled through the design, implementation and testing of final products to provide traceability throughout product development.

### *Key Customer Benefits:*

- Compliance with standards and regulations by controlling the requirement management process
- Improve product quality and customer satisfaction because new products are designed and developed that accurately reflect the voice of the customer
- Reduce development costs and rework by bridging the gap between product requirements, design and product launch processes and disciplines

## Portfolio Configuration Management

**ENOVIA® Variant Configuration Central™** enables systems engineers and product planners to tackle product diversity during the “idea” or concept phase of the product development process. A conceptual feature definition of the product is used as a framework for a diverse but modular platform.

### *Key Customer Benefits:*

- Rapidly introduce a family of variant products to market using a logical product structure that allows the reduction in product diversity while still fulfilling market demands
- Maximize the number of valid configurations available to the market
- Increase customer acceptance by eliminating invalid product configurations early in the sales process

**ENOVIA® Variant Configuration Experience** allows product engineering to utilize the system engineering definition of a product for design feasibility analysis. Product engineers can define configurations for evaluation purposes in order to reduce unnecessary product diversity and prevent invalid feature combinations that are not technically supported.

### *Key Customer Benefits:*

- Reduce unnecessary product diversity and avoid invalid product configurations
- Streamline the product definition and development process
- Maximize part re-use
- Minimize part proliferation

## Compliance

**ENOVIA® Materials Compliance Central™** enables companies to track, analyze, and report a product’s environmental compliance. Product compliance engineers can view the material content information in the context of the product bill of materials, and are able to cross reference this data against multiple regulations.

### *Key Customer Benefits:*

- Manage material data to meet customer and region specific compliance mandates
- Analyze a product’s compliance throughout the product development process
- Maximize the reuse of compliant components

**ENOVIA® Materials Compliance Supplier Portal** allows a company’s suppliers to view their assigned material declaration requests, review the customer’s reporting deadlines, and upload completed material declarations.

### *Key Customer Benefits:*

- Place the responsibility for supplier compliance reporting directly into the hands of suppliers
- Provide a secure environment for suppliers to view parts that need to be reported without exposing proprietary product information
- Allow suppliers to upload completed material declarations directly and, if desired, automatically import them directly into the ENOVIA system

**ENOVIA® X-BOM Materials Compliance** enables “eco-design” (Design for the Environment) by allowing product engineers to view environmental compliance of products, components, and supplied parts. Designers can quickly determine if components meet all the compliance standards and substance thresholds necessary for making changes early in the design process. The net result is delivering innovative and environmentally compliant products that meet global market demands.

**Key Customer Benefits:**

- Analyze a product’s compliance throughout the product development process
- Maximize the reuse of compliant components
- Create eco-friendly designs

**ENOVIA® IP Export Enforcement** enforces security rules to prevent unauthorized disclosure of intellectual property (IP) within ENOVIA.

**Key Customer Benefits:**

- Manage and protect all relevant IP in the enterprise with a single PLM system
- Safely share the system with all manner of people regardless of their organization affiliation, nationality or physical location
- Simultaneously achieve compliance with national export regulations, and contractual disclosure obligations

**ENOVIA® IP Export Classification** manages business rules to authorize, and prevent unauthorized, disclosure of intellectual property within the ENOVIA system.

**Key Customer Benefits:**

- Consolidate sources of change information to collect, analyze, plan, and implement product issues, requests, and change processes across the enterprise
- Assess the impact of changes to the overall product development schedule with real-time product change dashboards that eliminate manual collection, assessment, and reporting
- Reduce the risk of regulatory or customer non-conformance penalties by ensuring that company standard change processes are consistently followed

**ENOVIA® Product Quality Central™** manages complaints and non-conformance reports (NCR) so companies can avoid compliance risk, reduce waste and increase the ability to leverage quality information. As a result, product quality improves and the source of problems is removed.

**Key Customer Benefits:**

- Automate and streamline all complaints and non-conformance reporting across the enterprise to reduce loss of information
- Scale to handle a high volume of complaints and non-conformance reports for serialized and non-serialized units
- Shorten cycle time and lowers costs by consolidating disparate systems

**ENOVIA® Quality Improvement Central™** provides a company with a global, integrated closed-loop system for corrective and preventative action (CAPA) tracking of production and non-production quality issues and audit management for follow-up.

**Key Customer Benefits:**

- Seamless execution of CAPA processes with the change and product design processes
- Comprehensive CAPA process controls including investigation, root cause analysis, risk assessment and scheduling of action plan tasks
- Accelerated investigation, review, approval and closure cycles

**Decision Support Business Intelligence**

**ENOVIA® 3DLive™** revolutionizes PLM by putting knowledge at your fingertips and contextually connecting you to the product ecosystem—all within a single environment. The software leverages PLM data into useful business intelligence for better, faster decision-making.

**Key Customer Benefits:**

- Address program and project execution issues instantly, collaborating with stakeholders by visualizing risks and milestones in 3D
- React quickly to compliance issues by enabling program managers to identify in 3D visually the parts and responsible owners for taking action
- Enhance revenue by responding swiftly and accurately to RFQs by sharing PLM component information (costs, delivery date, etc.) with stakeholders

**ENOVIA® Live Collaborative Review** enables ENOVIA® 3DLive™ users to perform sophisticated, product design reviews using powerful visualization, navigation, and communication tools.

**Key Customer Benefits:**

- Exchange viewpoints among teams during product reviews and inspections with annotations thanks to 2D and 3D markers
- Enhance review process by revealing product elements not readily apparent from a basic, unmarked view of the exterior surface
- Gain instant access to any data source including 3D XML, ENOVIA® V6, ENOVIA® VPM V5, ENOVIA® VPM V4, and ENOVIA® SMARTTEAM™

**ENOVIA® Live Validation** enables managers, project leaders, and designers to oversee and participate in collaborative digital mockup reviews, packaging, and pre-assembly analyses within ENOVIA® 3DLive™ and CATIA® V6.

**Key Customer Benefits:**

- Shorten the review process by sharing identified problems with team members for faster resolution
- Identify and resolve design issues earlier in the product development cycle
- Accurately track design errors from identification to resolution

# Global Sourcing

## Collaborative Sourcing

**ENOVIA® Sourcing Central™** is a negotiation and request-for-quote (RFQ) management application for engineered products and services. It provides functionality that enables global organizations to streamline collaboration between customers, buyers, and suppliers. The result is better and faster sourcing practices that drive key profit, cost, and time-saving decisions in the design and sourcing of direct materials and engineered goods and services.

### *Key Customer Benefits:*

- Enhance process standardization and the efficiency of the RFQ process
- Improve collaboration between engineering, purchasing, and strategic suppliers by delivering real-time, secure access to documents, specifications, product data and change information
- Lower operational costs, shorten supplier turnaround time on responses and improve bid quality

Note: A dedicated ENOVIA Sourcing Central solution exists for Apparel and Fashion companies.

**ENOVIA® Buyer Analytics** is a decision support tool for buyers to award business to suppliers as part of the RFQ process. It provides capabilities to rank quotations from suppliers using several attributes at once while offering standardization and transparency in the decision making process.

### *Key Customer Benefits:*

- Make total-cost-to-source decisions while awarding bids
- Standardize the RFQ award process using pre-defined templates
- Reduce the acquisition cost of standard items via reverse auctions

**ENOVIA® Quotation Central™** makes it possible for a company's suppliers to participate in the electronic negotiation and RFQ process. As a result, the supplier can more accurately and quickly respond to customer opportunities as well as become an integral development partner.

### *Key Customer Benefits:*

- Minimize missed business opportunities by responding to RFQs from customers in a timely fashion
- Improve the accuracy of quotations by accessing current product related data including drawings, specifications, 3Dmodels, etc.
- Provide a comprehensive response to RFQs by including information on all requested data elements as well as optional attachments used for additional explanation

### Supplier Performance Monitoring

**ENOVIA® Supplier Central™** allows companies to manage supplier relations and improve supplier qualification throughout the product lifecycle. Secure collaboration capabilities allow suppliers to become an extension of a company's engineering organization.

#### *Key Customer Benefits:*

- Manage supplier relationships to maximize the quality of the supply base
- Enable secure supplier collaboration by providing them with direct access to real-time product information early in the design process
- Enhance strategic sourcing by having supplier capability, quality and performance information readily available for buyers when they need it

**ENOVIA® Supplier Representative** enables a buyer company's suppliers to maximize the value of their business relationship proactively. Suppliers can maintain their organizational information and provide inputs to the quality process. Suppliers are granted secure access to parts and specifications to which the buyer company has assigned them responsibility.

#### *Key Customer Benefits:*

- Ensure supplier information is accurate and up-to-date through self-administration of organizational information that support supplier collaboration processes
- Improve product quality by accurate and timely submission of deliverables to part quality and development plans
- Stay informed of the latest design progress by providing direct access to their assigned parts' data and related specifications



# IP Lifecycle Management

## **IP-Work-in-Progress**

**ENOVIA® VPM Central™** provides large engineering teams with a single PLM environment to handle sophisticated product development processes and manage complex products design with maximum traceability and flexibility.

### *Key Customer Benefits:*

- Manages product IP within the entire development lifecycle with a high level of changes traceability and global access to stored documents
- Leverages company expertise to accelerate evaluation of alternatives and enable knowledgeable decisions
- Represents accurately product variations in engineering and the enterprise to optimize customer value in every market

## **ENOVIA® VPM Configured Structure Definition**

provides the manipulation and review of product data in the engineering work in process (WIP) environment.

### *Key Customer Benefits:*

- Foster innovation through global teaming and workspaces
- Eliminate redundant and inaccurate data with global access to document storage and retrieval
- Maximize development efficiencies through interoperable processes that span concept-to-retirement

**ENOVIA® VPM Change Tracking** provides engineers with full control and traceability of modifications made with Dassault Systèmes authoring tools (CATIA®, DELMIA®, and SIMULIA®). It governs changes through the various stages of the product development cycle (design, manufacturing, maintenance, etc.).

### *Key Customer Benefits:*

- Execute and monitor design modifications through Engineering Change Actions
- Ensure change traceability under Engineering Change Action authority
- Track the progress of requested changes

**ENOVIA® VPM CATIA® V4 & V5 Coexistence** enables CATIA V4/V5 customers to work on CATIA V6 projects while leveraging existing investments and intellectual property (IP).

### *Key Customer Benefits:*

- Protect IP and leverage existing investment when implementing V6 projects
- Move at your own speed with the V6 stepped approach and a pre-packaged solution
- Foster intense design collaboration within your company and/or it's the supply chain

**ENOVIA® VPM Volume Computation** provides the ability to create alternate representations of products or assemblies for size reduction or for the creation of geometry creation better suited to specific contexts.

**Key Customer Benefits:**

- Generate lighter representations of parts by simplifying meshes to a user-selectable level of accuracy
- Generate simplified external representations of parts ensuring confidentiality protection when communicating with suppliers
- Perform space reservation by generating the swept volume of a moving part

**ENOVIA® VPM Digital Validation** enables engineering managers and project leaders to oversee and participate in collaborative digital mockup reviews, packaging, and pre-assembly analyses.

**Key Customer Benefits:**

- Shorten the review process by sharing identified problems with team members for faster resolution
- Identify and resolve design issues earlier in the product development cycle
- Track designs errors accurately from identification to resolution

**ENOVIA® VPM Interference Check** helps companies increase product design quality by enabling designers to detect product interferences and correct errors earlier in the product development process.

**Key Customer Benefits:**

- Improves design quality by discovering issues earlier in the development process
- Optimizes validation process by storing specifications and results for future use
- Enhances productivity by enabling designers to check design consistency while staying in the same authoring environment

**ENOVIA® VPM Interference Management** improves design quality, enhances time to market, and keeps costs in control by detecting, tracking, and managing interferences on complex and large digital mockups.

**Key Customer Benefits:**

- Avoid costly mistakes and lost productivity by performing regular design interference checks on complex digital mock-ups
- Improve design product quality by automating interference verifications, tracking and resolution
- Optimize CPU performance while still handling large data volumes

**ENOVIA® Designer Central™ for CATIA® V5** provides a multi-site CATIA V5 design data management solution for the extended enterprise. It allows designers to access and share each other's designs from within the native CATIA V5 user interface.

**Key Customer Benefits:**

- Provide work-in-process data management for CATIA V5 users
- Schedule meetings for review at any step in the development process
- Securely provide design information to suppliers and customers

**ENOVIA® Designer Central™** enables designers around the world to manage and collaborate from one application, no matter what design tools they are using. The product eliminates the need for multiple Computer-Aided-Design (CAD) work group managers and the cost associated with supporting each related data manager. The product supports the following electronic computer-aided-design (ECAD) and mechanical computer-aided-design (MCAD) tools:

- CATIA® V5
- CATIA® V4
- Cadence® Allegro
- Mentor Graphics Design Manager
- Mentor Graphics Expedition
- Zuken CR-5000
- MicroStation
- Pro/ENGINEER
- Solid Edge
- SolidWorks®
- NX
- Autodesk® Inventor®
- AutoCAD and AutoCAD Mechanical
- IGES
- STEP

**Key Customer Benefits:**

- Provide work-in-process data management across all popular mechanical and electrical design tools
- Visually collaborate around the design information or other information related to the design
- Schedule meetings for review at any step in the development process

**ENOVIA® Collaborative Design for AutoCAD** provides a multi-site AutoCAD design data management solution for the extended enterprise. It allows designers to access and share each other's designs from within the native AutoCAD user interface by leveraging the design team collaboration capabilities of ENOVIA® Designer Central™.

**Key Customer Benefits:**

- Maintain accurate representations of the intended drawing in the PLM database
- Achieve centralized management of all CAD files
- Control work-in-process, engineering changes, data, documents, and dynamic configurations

**ENOVIA® Collaborative Design for CATIA® V4** provides a multi-site CATIA V4 design data management solution for the extended enterprise. The product allows designers to effortlessly access, manage, share, and store CATIA V4 data without leaving their preferred environment.

**Key Customer Benefits:**

- Maintain accurate representations of the intended design in the ENOVIA database
- Achieve centralized management of all CAD files
- Control work-in-process, engineering changes, data, documents, and dynamic configurations

**ENOVIA® Collaborative Design for Inventor** provides a multi-site Inventor design data management solution for the extended enterprise. It allows designers to access and share each other's designs from within the native Inventor user interface by leveraging the design team collaboration capabilities of ENOVIA® Designer Central™.

**Key Customer Benefits:**

- Maintain accurate representations of the intended design in the PLM database
- Achieve centralized management of all CAD files
- Control work-in-process, engineering changes, data, documents, and dynamic configurations

**ENOVIA® Collaborative Design for MicroStation**

provides a multi-site MicroStation design data management solution for the extended enterprise. It allows designers to access and share each other's designs from within the native MicroStation user interface by leveraging the design team collaboration capabilities of ENOVIA® Designer Central™.

- Maintain accurate representations of the intended design in the PLM database
- Achieve centralized management of all CAD files
- Control work-in-process, engineering changes, data, documents, and dynamic configurations

**ENOVIA® Collaborative Design for Pro/ENGINEER**

provides a multi-site Pro/ENGINEER design data management solution for the extended enterprise. It allows designers to access and share each other's designs from within the native Pro/ENGINEER user interface by leveraging the design team collaboration capabilities of ENOVIA® Designer Central™.

**Key Customer Benefits:**

- Maintain accurate representations of the intended design in the PLM database
- Achieve centralized management of all CAD files
- Control work-in-process, engineering changes, data, documents, and dynamic configurations

**ENOVIA® Collaborative Design for Solid Edge** provides a multi-site Solid Edge design data management solution for the extended enterprise. It allows designers to access and share each other's designs from within the native Solid Edge user interface by leveraging the design team collaboration capabilities of ENOVIA® Designer Central™.

**Key Customer Benefits:**

- Maintain accurate representations of the intended design in the PLM database
- Achieve centralized management of all CAD files
- Control work-in-process, engineering changes, data, documents, and dynamic configurations

**ENOVIA® Collaborative Design for SolidWorks®**

provides a multi-site SolidWorks design data management solution for the extended enterprise. It allows designers to access and share each other's designs from within the native SolidWorks user interface by leveraging the design team collaboration capabilities of ENOVIA® Designer Central™.

**Key Customer Benefits:**

- Maintain accurate representations of the intended design in the PLM database
- Achieve centralized management of all CAD files
- Control work-in-process, engineering changes, data, documents, and dynamic configurations

**ENOVIA® Collaborative Design for UGS NX** provides a multi-site NX design data management solution for the extended enterprise. It allows designers to access and share each other's designs from within the native NX user interface by leveraging the design team collaboration capabilities of ENOVIA® Designer Central™.

**Key Customer Benefits:**

- Maintain accurate representations of the intended design in the PLM database
- Achieve centralized management of all CAD files
- Control work-in-process, engineering changes, data, documents, and dynamic configurations

**ENOVIA® Collaborative Design for Cadence® Allegro** enables companies to accelerate product development and delivery by allowing designers to easily share information regarding their electrical designs throughout the product life cycle. The product facilitates concurrent printed circuit board (PCB) design, resulting in fewer engineering changes, shorter development times and lower production costs. This product is integrated with the following Allegro applications: Project Manager, Design Entry HDL, and PCB Design.

**Key Customer Benefits:**

- Decrease the time to develop printed circuit boards (PCBs) by enabling concurrent schematic and layout design
- Manage complex design projects by enabling team-based schematic design using hierarchical design methodology
- Reduce the number of design iterations by enabling enterprise collaboration throughout the design process between electrical and mechanical designers, purchasing, manufacturing, and partners

**ENOVIA® Collaborative Design for Mentor Graphics Expedition Enterprise** enables companies to accelerate product development and delivery by allowing designers to share information regarding their electrical designs easily throughout the product life cycle. The product facilitates concurrent printed circuit board (PCB) design for Mentor Graphics Expedition Enterprise, resulting in fewer engineering changes, shorter development times and lower production costs.

**Key Customer Benefits:**

- Reduce the number of design iterations by enabling enterprise collaboration throughout the design process between electrical and mechanical designers, purchasing, manufacturing, and partners
- Reduce scrap and re-work costs by minimizing data transfer errors between engineering and manufacturing
- Reduce ramp up production lead times by providing component information to your supply chain earlier in the development process through preliminary BOMs

### **ENOVIA® Collaborative Design for Mentor Graphics**

**Design Manager** enables companies to accelerate product development and delivery by allowing designers to easily share information regarding their electrical designs throughout the product life cycle. The product facilitates concurrent printed circuit board (PCB) design, resulting in fewer engineering changes, shorter development times and lower production costs.

#### **Key Customer Benefits:**

- Reduce the number of design iterations by enabling enterprise collaboration throughout the design process between electrical and mechanical designers, purchasing, manufacturing, and partners
- Reduce scrap and re-work costs by minimizing data transfer errors between engineering and manufacturing
- Reduce ramp up production lead times by providing component information to your supply chain earlier in the development process through preliminary BOMs

### **ENOVIA® Collaborative Design for Zuken CR-5000**

enables companies to accelerate product development and delivery by allowing designers to share information regarding their electrical designs easily throughout the product life cycle. The product facilitates concurrent printed circuit board (PCB) design, resulting in fewer engineering changes, shorter development times, and lower production costs. This product is integrated with System Designer, Board Designer, and Board Producer.

#### **Key Customer Benefits:**

- Decrease the time to develop PCBs by enabling concurrent schematic and layout design
- Manage complex design projects by enabling team-based schematic design using hierarchical design methodology
- Reduce the number of design iterations by enabling enterprise collaboration throughout the design process between electrical and mechanical designers, purchasing, manufacturing, and partners

### **ENOVIA® Collaboration for STEP**

imports STEP geometry files to leverage expertise throughout the extended enterprise. The product speeds innovation and improves quality by enabling users to share STEP files.

#### **Key Customer Benefits:**

- Collaborate with partners using STEP – a standard and open format.
- Make partner contributions available across the company for global business processes
- Foster design in context creation and design reviews for better product quality and reactivity

### **ENOVIA® Collaboration for IGES**

imports IGES geometry files to leverage expertise throughout the extended enterprise. The software speeds innovation and improves quality by enabling users to share IGES files.

#### **Key Customer Benefits:**

- Collaborate with partners using IGES – a standard and open format
- Make partner contributions available across the company for global business processes
- Foster design in context creation and design reviews for better product quality and reactivity

### **ENOVIA® Synchronicity® DesignSync® Central™**

manages the hardware and software data in a semiconductor company's products, and provides a collaborative and secure environment for resolving product development issues amongst geographically dispersed development teams. Data can be managed at both the detailed file/directory level, and at a "modular" level of abstraction.

#### **Key Customer Benefits:**

- Connect and manage your entire design chain with a unified DDM system
- Significantly boost design productivity for a rapid payback and strong return on investment (ROI)
- Maximize your ability to reuse existing designs and embedded software

### **ENOVIA® Collaboration for Adobe Creative Suite**

creates and accesses ENOVIA-managed data directly from within the native Adobe interface. This enables design teams to manage data within ENOVIA and share that information across the enterprise while not disrupting the established productivity of those teams.

#### ***Key Customer Benefits:***

- Simplify access to product and component artwork using the native Adobe interface
- Improve collaboration between design teams by sharing the same data
- Apply enterprise-level data sharing and security without disrupting established end-user work procedures

### **IP Asset Release**

**ENOVIA® Engineering Central™** eliminates the significant process and data communication barriers that exist between mechanical, electronics, and software engineering disciplines within the enterprise and the product supply chain.

#### ***Key Customer Benefits:***

- Consolidate part design content from multiple Engineering systems and tools by providing a single definition of the engineering BOM
- Leverage the skills and knowledge of the enterprise and supply chain through the institutionalization of cross-functional product development and engineering change processes
- Decrease product costs by enabling component engineers to qualify and manage purchased parts from multiple suppliers on a local or global basis

Note: ENOVIA Engineering Central exists in different industry flavors including Life Sciences, High Tech and Semiconductor.

### **ENOVIA® Engineering Configuration Central™**

addresses key global product development challenges by eliminating the significant process and data communication barriers that exist between mechanical, electronics, and software engineering disciplines within the enterprise and the product supply chain.

#### ***Key Customer Benefits:***

- Consolidate part design and related technical document content from multiple engineering tools by providing a single definition of EBOM
- Increase product innovation through improved communication and collaboration with global development
- Enable buyers to track specific high cost materials

### **ENOVIA® X-BOM Cost Analytics** provides

manufacturing companies the ability to estimate, track, and manage product costs very early in the product lifecycle. It enables cost analysts, engineers, and buyers to analyze BOMs using standard or actual costs for existing parts and estimated or quoted costs for new or modified parts.

#### ***Key Customer Benefits:***

- Identify opportunities for cost savings earlier in the product lifecycle and drive them to the bottom line faster
- Make better product decisions by understanding the cost impact of change during early product design phase
- Perform product cost and margin analysis with higher confidence level compared to manual methods

**ENOVIA® X-BOM Manufacturing** provides a manufacturing BOM management solution complimenting ENOVIA® Engineering Central™, which manages engineering BOMs and related engineering documentation. The combined solution supports a seamless flow of product development and manufacturing data and processes in support of a global business strategy.

**Key Customer Benefits:**

- Decrease time from design release to manufacturing readiness by implementing a solution that enables concurrent design and manufacturing planning BOM activities
- Reduce manufacturing costs by identifying and resolving manufacturability issues early in the development process
- Reduce errors and decrease time associated with the implementation of engineering changes across several manufacturing locations

**ENOVIA® X-BOM Unit Tracking** captures the precise as-built and as-maintained bill-of-material structure for all its product deliveries from concept to manufacturing and from delivery to retirement. Tracking and managing exact configurations of products shipped enables a business to quickly review product information to resolve issues with production, warranties, and product recalls.

**Key Customer Benefits:**

- Capture and plan physical end-item units early in the product lifecycle process
- Maintain a record of shipped products
- Track customer's deliveries relative to committed units in the plan

**IP Classification & Reuse**

**ENOVIA® Library Central™** enables companies to achieve a competitive advantage by assisting in the accelerated product development and delivery through product content reuse. Users can easily create new documents or locate existing product content to classify and organize the content in a hierarchy that is tailored to their business environment and products. Because of minimal effort involved, the library's definition can adapt quickly and easily to rapidly changing business needs.

**Key Customer Benefits:**

- Create multiple library classification systems to fit your company's business needs, functional roles, and/or products
- Apply standard attributes to the library taxonomy for robust parametric searches and comparisons of classified data based on different usage models
- Classify existing product content from other ENOVIA products or create new product documents with robust document management capabilities

**ENOVIA® Library Experience** enables companies to achieve a competitive advantage by assisting in accelerated product development and delivery through reuse of existing product content. Users can easily create new documents or locate existing product content to classify and organize in a hierarchy that is tailored to their business environment and products.

**Key Customer Benefits:**

- Work with library classification systems that match their role's unique needs
- Classify existing product content from other ENOVIA products or create new product documents with robust document management capabilities
- Search libraries based on classification parameters in any unit of measure

**ENOVIA® Component Central™** identifies and manages reusable components in order to reduce costs when defining the approved vendor and manufacturer lists (AVL and AML) for the enterprise BOM.

**Key Customer Benefits:**

- Improve product quality by managing accurate and real time component information stored in a single, centralized system
- Reduce costs through the enterprise-wide reuse of preferred parts/suppliers/manufacturers across multiple programs
- Create and maintain enterprise catalogs without requiring costly data modeling or administrative knowledge of the underlying process

## Unified Live Collaboration

### **Data Warehouse and Process Management**

**ENOVIA® Live Collaboration** is the underlying support for all ENOVIA® products and other Dassault Systèmes products for PLM, which include CATIA®, 3DLive®, SIMULIA®, and DELMIA®. ENOVIA Live Collaboration and its optional products establish the necessary environment for end users to collaborate effectively during product development.

**Key Customer Benefits:**

- Deploy PLM solutions to solve immediate business problems, and quickly scale to support large global deployments
- Collaborate with external partners, suppliers, and developers as early as possible in the development process
- Increase external collaboration through role-based access while maintaining network and information security

**ENOVIA® Collaboration for Microsoft** allows users to create and access ENOVIA data from the most popular Microsoft applications: Word®, Excel®, PowerPoint®, Outlook®, Windows Explorer, and Windows Desktop Search. This capability enables enterprise-level collaboration while not disrupting the established productivity of end users.

**Key Customer Benefits:**

- Accelerate Return on Investment (ROI) because of a more rapid adoption of PLM
- Enhance user adoption by simplifying access to product content using the most popular Microsoft applications
- Improve collaboration and decision making throughout the enterprise by leveraging product data

**ENOVIA® File Collaboration Server** allows a customer to deploy file servers closer to end users for improved file upload and download performance in a global, multi-site implementation.

**Key Customer Benefits:**

- Distribute file servers to improve file download and upload performance for better user experience
- Replicate file data across distributed file servers for local access by all enterprise users
- Add custom extensions to support additional services such as DRM and other requirements

**ENOVIA® Collaborative 2D & 3D Viewing with AutoVue Professional** allows users to view and mark-up a file checked into ENOVIA without having access to the tool used to author the file.

**Key Customer Benefits:**

- Document viewing of native formats
- Mark up documents using a rich set of graphical and textual tools
- Review your markups and those of your co-workers
- Full security when accessing data from the ENOVIA vaults

**ENOVIA® Report Generator** allows users to execute dynamic reports from the information stored in ENOVIA. Reports can include high-resolution images and intuitive charts to simplify a user's understanding of complex product data. It supports both the formats and the delivery mechanisms that best suit end users from various roles in the in any part of the company.

**Key Customer Benefits:**

- Generate reports formatted in PDF, PostScript, Text, XML or HTML for easy publishing, sharing and printing
- Visualize trends in large volumes of ENOVIA data using charts or formatted tables
- Fulfill their unique business needs without requiring IT to make expensive customizations
- View reports immediately or send them by email, FTP upload, or Java Message Service (JMS) queue

**IP Asset Federation**

**ENOVIA® X-BOM for Rational ClearCase** provides access to software engineering content from ENOVIA while still allowing software developers to use Rational ClearCase for source code control and build management. The net result is better cross-functional collaboration across the extended enterprise with no impact on software engineering productivity.

**Key Customer Benefits:**

- Securely distribute Rational ClearCase software builds and documentation to the supply chain and manufacturing with ENOVIA products
- Define and validate embedded software parts with design documentation managed in Rational ClearCase
- Understand potential cross-functional design impact when proposing a change to a mechanical, electrical, or software part

**ENOVIA® X-BOM for VPM V4-V5** avoids migrating ENOVIA VPM V4 or V5 data while gaining greater product development efficiencies with the extended enterprise. It coordinates the design activities with the enterprise configuration management and bill of material management (BOM) management business processes.

**Key Customer Benefits:**

- Consolidate part design content from multiple engineering systems and tools by providing a single bill-of-material that is bi-directionally updated with the design work-in-process
- Expose design structure and viewable files from VPM V4 or V5 to cross-functional users throughout the extended enterprise
- Provide cross-functional engineering change control inclusive of comprehensive design impact analysis and implementation

**ENOVIA® X-BOM for JD Edwards World/EnterpriseOne** facilitates collaboration between product engineering and manufacturing by enabling the real-time, bi-directional exchange of part, bill-of-material, operational, manufacturing cost and inventory data between ENOVIA and Oracle's JD Edwards World or JD Edwards EnterpriseOne.

**Key Customer Benefits:**

- Provide a seamless information flow between ENOVIA and one or more JD Edwards World/Enterprise One instances
- Eliminate data entry errors by automatically exchanging "work in process" product information, such as preliminary BOM structures
- Provide product engineers with early access to manufacturing operations data in real time and in the context of their work

**ENOVIA® X-BOM for Oracle Manufacturing** facilitates collaboration between product engineering and manufacturing by enabling the real-time, bi-directional exchange of part, BOM, operational, manufacturing cost and inventory data between ENOVIA and Oracle Manufacturing.

**Key Customer Benefits:**

- Provide a seamless information flow between ENOVIA and one or more Oracle Manufacturing instances
- Data entry errors eliminated by automatically exchanging "work in process" product information, such as preliminary BOM structures
- Provide product engineering with early access to manufacturing operations data in real time and in the context of their work

**ENOVIA® X-BOM for QAD MFG/PRO** facilitates collaboration between product engineering and manufacturing by enabling real-time, bi-directional exchange of part, bill-of-material, operational, manufacturing cost and inventory data between ENOVIA and QAD MFG/PRO.

**Key Customer Benefits:**

- Provide a seamless information flow between ENOVIA and one or more QAD MFG/PRO instances
- Data entry errors eliminated by automatically exchanging "work in process" product information, such as preliminary BOM structures
- Provide product engineering with early access to manufacturing operations data in real time and in the context of their work

**ENOVIA® X-BOM for SAP** facilitates collaboration between product engineering and manufacturing by enabling real-time, bi-directional exchange of part, BOM, operational, manufacturing cost and inventory data between ENOVIA and SAP.

**Key Customer Benefits:**

- Provide a seamless information flow between ENOVIA and one or more SAP instances
- Data entry errors eliminated by exchanging “work in process” product information automatically, such as preliminary BOM structures
- Provide product engineering with early access to manufacturing operations data in real time and in the context of their work

**I-PLM Collaboration Studio**

**ENOVIA® Studio Modeling Platform** provides the development tools for a company to define configurations that are needed in their production ENOVIA system. It allows implementers to change default ENOVIA behavior easily so the unique development processes of a company can be maintained.

**Key Customer Benefits:**

- Ensure end user acceptance
- Achieve targeted business process improvements
- Maintain a competitive advantage with unique capabilities without compromising the ability to upgrade to newer releases

**ENOVIA® Studio Customization Toolkit** provides documentation and examples for writing custom programs and support web services client development. Documentation for each standard web service is provided along with the Web Service Definition Language (WSDL) file to enable generation of the client code.

**Key Customer Benefits:**

- Extend ENOVIA Collaboration Platform capabilities with custom code to meet unique use case requirements
- Reference online documentation for all Java and C++ functions
- Leverage working code samples for commonly used extensions

**ENOVIA® Studio Federation Toolkit** provides documentation and examples for writing custom programs that use the ADAPLET® libraries available in ENOVIA® Live Collaboration. The software enables customer to extend standard ENOVIA product capabilities to create a PLM federation with other enterprise systems.

**Key Customer Benefits:**

- Access data from multiple systems through a single interface
- Extend legacy systems with additional capabilities that are available by the ENOVIA system such as additional meta-data, workflow, file management and other services
- Integrate to multiple systems such as transferring ENOVIA data to other systems (e.g. Enterprise Resource Planning) based on triggers that are executed during business processes

**ENOVIA® Studio Schema Analyzer** is an administrative tool that customers use to manage their daily schema development and maintenance activities as they implement new releases of ENOVIA or implement new capabilities on top of their current ENOVIA deployment. Administrators are able to quickly decipher and learn the data model associated with the ENOVIA system using standard graphical and textual reports.

**Key Customer Benefits:**

- Explore the ENOVIA data model using an interactive, offline, user friendly Windows client
- Understand the dependency and relationship between various schema elements to identify where each schema element is used and the impact of changing it
- Make schema modifications offline and sync back to the online database only the changes that are complete

**ENOVIA® Studio Architect Edition** provides a complete set of highly automated software engineering tools ensuring built-in quality to develop custom applications for DS V6 authoring products (ENOVIA® VPM Central™, ENOVIA® VPM Team Central™, CATIA®, DELMIA®, and SIMULIA®).

**Key Customer Benefits:**

- Full application development processes coverage
- Full integration with Microsoft Visual Studio 2008®
- Components workspace creation wizard

**ENOVIA® Studio Developer Edition** is a rapid application development environment (RADE) on the Windows platform for building C++ applications based on the V6 architecture. It provides a single point of access to the C++ development tools that support the full development cycle, from design and development through test, deployment and maintenance.

**Key Customer Benefits:**

- Full application development processes coverage
- Full integration with Microsoft Visual Studio 2008®
- Components workspace creation wizard

**ENOVIA® Studio VPM API** provides programming interfaces to extend ENOVIA® VPM Central™ or ENOVIA® VPM Team Central™ implementations with company-specific processes and functionality. It does not change the behavior of any existing ENOVIA products, but it does enable the addition of new capabilities to the existing products.

**Key Customer Benefits:**

- Extend the standard functionality of VPM-based products to fit specific needs and processes
- Benefit from a seamless user interface for custom programs inserted directly in the ENOVIA application frame
- Use best-of-breed modeler techniques to ensure IP integrity across the various disciplines





## Delivering Best-in-Class Products



Virtual Product Design



Global Collaborative Lifecycle Management



3D for Professionals



Information Intelligence



Realistic Simulation



Social Innovation



Virtual Production



Online 3D Lifelike Experiences

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Dassault Systèmes, the 3D Experience Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 150,000 customers of all sizes in all industries in more than 80 countries. For more information, visit [www.3ds.com](http://www.3ds.com).

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